



Department of
**Environment &
Conservation**

Division of Radiological Health

Topic 1 - Functions and Responsibilities

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Agenda

- Mission
- Locations
- Sections

Mission

- Responsible for protecting Tennesseans and the environment from the hazards associated with ionizing radiations.
 - Ionizing: Remove electrons from an atom.
 - Alpha, Beta, & Gamma
 - Non-ionizing: Vibrate but not remove.
 - Radio, microwaves, extremely low frequency

Terms

- Dose
 - Rad: radiation absorbed dose
 - Rem: roentgen equivalent man; absorbed dose x quality factor
- Dose rate
 - Dose per unit of time
 - R/hr, Rem/hr, mrem/hr

Mission

- Regulation of radioactive materials and radiation producing machines
 - Radioactive Machines (0400-20-04-.04(1))
 - Radiation Materials (0400-20-04-.04(1))
- Accident Response
- Environmental Monitoring
 - Nuclear plants
 - Material licensees

Method

- Tennessee Code
 - Title 68 - Health, Safety and Environmental Protection
 - Chapter 202 - Atomic Energy and Nuclear Materials
- TDEC Rules
 - 0400-20 (Unit-Division)

Locations

- Central Office
 - Debra Shults, Director
 - 15th Floor, TN Tower
- Field Offices
 - Nashville - Beth Shelton
 - Memphis - Allen Grewe
 - Knoxville - Mark Andrews
 - Chattanooga - Steve Seeger

Sections

- Licensing/Registration/Planning
- Technical Services
- Inspection and Enforcement

Licensing/Registration/Planning

- Licensing
 - General
 - Specific
 - Rule 0400-20-10-.08
- Registration
 - Rule 0400-20-10-.24
 - Radiation machine or accelerator
 - Seven classes

Technical Services

- Environmental Monitoring
- Waste Tracking
- Emergency Preparedness
- Regulations Standards



TM

Inspection & Enforcement

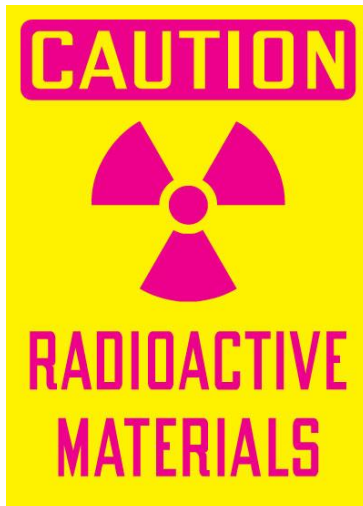
Inspection and Enforcement

- I & E staff achieve the Division mission by performing compliance inspections on facilities that possess or produce ionizing radiation.



Types of facilities DRH inspects

- The Division is responsible for inspecting facilities that possess x-ray machines, and radioactive material.
- The Division also performs MQSA inspections on mammography units for the FDA.



Facilities DRH I&E DOES NOT Inspect

- DRH I&E does not inspect federal facilities such as:
 - TVA Facilities: Watt's Bar or Sequoia Power Plants
 - These facilities are regulated by the Nuclear Regulatory Committee
 - DOE Facilities: Y-12 National Security Complex, East Tennessee Technology Park (K-25, K-27), Oak Ridge National Lab
 - These are regulated by the Department of Energy



X-ray Inspections

- I&E inspects facilities that have x-ray machines such as:
 - Doctor's offices
 - Dentist's offices
 - Veterinary offices
 - Hospitals
 - Industrial facilities
 - Mammography machines that are inspected through the MQSA program, are also x-ray machines.



X-ray Inspections

- X-rays are listed into 7 categories (1 through 7)
- Depending on the category the machine will be inspected from annually to every 4 years.
- MQSA mammography x-ray machines are inspected annually.



Radioactive Materials Inspections

- I&E inspects facilities that contain radioactive materials, such as:
 - Waste Processors
 - Industrial facilities
 - Medical Offices
 - Hospitals
 - Nuclear Pharmacies
 - Industrial Radiographers
 - College Laboratories



Radioactive Material Inspections

- Facilities that possess RAM are called Licensees
- Inspections are performed on Licensees from annually to every 5 years depending on the authorization code.



Questions

- Questions after Topic 2 Presentation